



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,294	02/20/2002	Bodo K. Parady	5181-05005	7976

7590

05/14/2004

Lawrence J. Merkel
Conley, Rose & Tayon, P.C.
P.O. Box 398
Austin, TX 78767

EXAMINER

PRIETO, BEATRIZ

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,294

Applicant(s)

PARADY, BODO K.

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-46 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 27-33 and 37-46 is/are rejected.
7) ☒ Claim(s) 34-36 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to amendment filed 2/20/03, claims 1-26 have been canceled, claims 27-46 remain pending.
2. Claim 45 is rejected under 35 U.S.C. § 101 which reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
3. Claim 45 is rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. In this case, computer-related inventions whether descriptive or functionally descriptive material are non-statutory categories when claimed as descriptive material *per se* (see *Warmerdam*, 33 F.3d at 1360 USPQ2d at 1759), falling under the “process” category (i.e. inventions that consist of a series of steps or acts to be performed). See 35 U.S.C. 100(b) (“The term process means, art, or method, and includes a new or a known process, machine, manufacture, composition of matter or material”). Functional descriptive material: “data structures” representing descriptive material *per se* or computer program representing computer listing *per se* when embodied in a computer-readable media are still not statutory because they are not capable of causing functional change in the computer. However, claimed computer-readable medium encoded with a data structure defined structural and functional interrelationships between the data structure and the computer software and hardware component, which permit the data structure’s functionality to be realized, and is thus statutory (see MPEP 2106).
4. Preliminary amendment filed 2/20/04 has been entered and hereby considered, previous office action mailed 1/28/04 is hereby vacated.
5. Claim 34, (and 35-36 by dependency) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Quotation of the appropriate paragraph of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

7. Claim 27 is rejected under 35 U.S.C. 102(b) 35 U.S.C 102(b) as being anticipated by Maeda et. al. U.S. Patent No. 4,496,350 (Maeda hereafter).

Regarding claim 27, Maeda teaches substantial features of the invention as claimed, teaching a "shift-register" memory 11 comprising a plurality of ("slots") registers (21-25) connected in series (Fig. 7, col 4/lines 30-41); each one of the plurality of registers are coupled to one of a plurality of modules (51-55) (col 4/lines 63-67).

8. Claims 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Spandorfer U.S. Patent No. 4,156,288

Regarding claim 27, Spandorfer teaches substantial features of the invention as claimed, teaching a shift register (10 of Fig. 1) comprising a plurality of stages 1-n ("slots") connected in series (col 1/lines 45-50, col 4/lines 42-45),
each one of the plurality of stages is coupled to one of the plurality of gates ("modules") (18) (col 4/lines 58-60).

Regarding claim 33, a plurality of modules (18); a shift register (10) having a plurality of slots connected in series (col 1/lines 45-50, col 4/lines 42-45), each one of the plurality of slots coupled to one of the plurality of modules (col 4/lines 58-60).

Regarding claim 45, transferring stored bits from the preceding stage to the next stage in the shift register (col 3/lines 28-32 and col 3/lines 66-col 4/line 5); the plurality of data comprising communication among a plurality of modules (col 3/lines 28-32), each one of the plurality of slots coupled to one of the plurality of modules (col 4/lines 58-60).

Regarding claim 28, each one of the plurality of slots configured to store data (Spandorfer: col 1/lines 52-55); and each one of the plurality of slots is configured to transmit data to another one of the plurality of slots (Spandorfer: col 3/lines 28-32, col 3/lines 66-col 4/line 5).

Regarding claim 29, each of the plurality of slots is coupled to an input from one of the plurality of modules (Spandorfer: col 3/lines 58-62).

9. Claims 30-32, 37-44 and 46 are rejected under 35 U.S.C. 103(b) as being unpatentable by Spandorfer in view of Lambarelli et. al. U.S. Patent No. 4,663,758 (Lambarelli).

Regarding claim 30, however Spandorfer does not explicitly teach an optical communication Medium or path;

Lambarelli teaches an optical fiber bus for interconnecting an interconnecting device and station (col 4/lines 16-28, 39-45 and Figs. 3 and 5).

It would have been obvious to one ordinary skilled in the art at the time the invention was made given of the prior art with respect to the user of shift-registers for transferring data from a data source to a sink, the teachings of Lambarelli for transmitting data on optical fiber interconnects for supporting both packet-switch and circuit-switched traffic would be readily apparent. Motivation to combine the teachings of Lambarelli with Spandorfer would be enable the integration of different networks operating under different protocols

Regarding claims 31, transmitting comprises transmitting over and optical communication medium ("optically transmitting") (Lambarelli: col 4/lines 16-18, 59-61).

Regarding claim 32, output comprises an optical interconnect (Lambarelli: col 4/lines 16-28, 59-61).

Regarding claims 37-39, one module comprises a memory (Lambarelli: col 14/lines 38-45; one module comprises a processing circuitry/logic "CPU"(col 9/lines 22-37); and one module comprises and I/O (Fig. 12, element SR5).

Regarding claims 40-44 and 46, this claims are substantially the same as claims 28-32, and 31, respectfully, same rationale of rejection is applicable.

Related U.S. Patents:

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinence is presented in accordance with MPEP§ 707.05. Copies of documents cited will be provided as set forth in MPEP§ 707.05(a):

U.S. Patent No. 4,054,873

Parent teaches a shift-register forming a ring circuit comprising a stages, the parallel inputs of the said stages being connected to the outputs and the parallel outputs of the said stages being connected to inputs; each stage comprises a register, the registers of each stage are connected in series with each other forming a ring or loop.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Jack B. Harvey can be reached on (703) 305-9705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to the Central Fax Office:
(703) 872-9306, for Official communications and entry;

Or Telephone:
(703) 306-5631 for TC 2100 Customer Service Office.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington VA, Fourth Floor (Receptionist), further ensuring that a receipt is provided
stamped "TC 2100".



B. Prieto
TC 2100
Patent Examiner
May 11, 2004